

Amendments to the Claims

This listing of claims will replace all prior versions and listing of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (canceled).

Claim 3 (currently amended) ~~The film as recited in claim 1,~~ A film for forming a bag with a lap seal, a top seal and a bottom seal, the film comprising:

a seal layer, wherein the seal layer includes metallocene catalyzed polyethylene,

a barrier layer opposite from the seal layer such that seal layer and the barrier layer provide opposing exterior surfaces of the film,

a peel layer positioned between the seal layer and the barrier layer, wherein the said peel layer comprises mineral filler and a matrix polymer,

wherein the seal layer has a seal layer melting point and the barrier layer has a barrier layer melting point that is higher than the seal layer melting point,

wherein the seal layer is capable of sealing to the barrier layer at a temperature below the barrier layer melting point, to enable the lap seal to be formed between the barrier layer and the seal layer when the film is formed into a bag, and

wherein the seal layer is capable of sealing to itself at a temperature below the barrier layer melting point.

Claim 4 (currently amended) ~~The film as recited in claim 1,~~ A film for forming a bag with a lap seal, a top seal and a bottom seal, the film comprising:

a seal layer, wherein the seal layer includes metallocene catalyzed polyethylene,

a barrier layer opposite from the seal layer such that seal layer and the barrier layer provide opposing exterior surfaces of the film,

a peel layer positioned between the seal layer and the barrier layer, wherein the said peel layer comprises styrene-butadiene and a matrix polymer,

wherein the seal layer has a seal layer melting point and the barrier layer has a barrier layer melting point that is higher than the seal layer melting point,

wherein the seal layer is capable of sealing to the barrier layer at a temperature below the barrier layer melting point, to enable the lap seal to be formed between the barrier layer and the seal layer when the film is formed into a bag, and

wherein the seal layer is capable of sealing to itself at a temperature below the barrier layer melting point.

Claim 5 (currently amended) ~~The film as recited in claim 1,~~A film for forming a bag with a lap seal, a top seal and a bottom seal, the film comprising:

a seal layer, wherein the seal layer includes metallocene catalyzed polyethylene,

a barrier layer opposite from the seal layer such that seal layer and the barrier layer provide opposing exterior surfaces of the film,

a peel layer positioned between the seal layer and the barrier layer, wherein the said peel layer comprises ionomer and a matrix polymer,

wherein the seal layer has a seal layer melting point and the barrier layer has a barrier layer melting point that is higher than the seal layer melting point,

wherein the seal layer is capable of sealing to the barrier layer at a temperature below the barrier layer melting point, to enable the lap seal to be formed between the barrier layer and the seal layer when the film is formed into a bag, and

wherein the seal layer is capable of sealing to itself at a temperature below the barrier layer melting point.

Claim 6 (currently amended) ~~The film as recited in claim 1,~~A film for forming a bag with a lap seal, a top seal and a bottom seal, the film comprising:

a seal layer, wherein the seal layer includes metallocene catalyzed polyethylene,

a barrier layer opposite from the seal layer such that seal layer and the barrier layer provide opposing exterior surfaces of the film,

a peel layer positioned between the seal layer and the barrier layer, wherein the said peel layer comprises polypropylene and a matrix polymer,

wherein the seal layer has a seal layer melting point and the barrier layer has a barrier layer melting point that is higher than the seal layer melting point,

wherein the seal layer is capable of sealing to the barrier layer at a temperature below the barrier layer melting point, to enable the lap seal to be formed between the barrier layer and the seal layer when the film is formed into a bag, and

wherein the seal layer is capable of sealing to itself at a temperature below the barrier layer melting point.

Claim 7 (currently amended) The film as recited in ~~claim 1~~any of claims 3 through 6, wherein the barrier layer contains a polymer selected from the group consisting of high density polyethylene and polypropylene.

Claim 8 (currently amended) The film as recited in ~~claim 1~~any of claims 3 through 6, wherein the barrier layer contains high density polyethylene, and wherein the high density polyethylene is a homopolymer of ethylene.

Claim 9 (original) The film as recited in claim 3, wherein the high density polyethylene has a density of at least about 0.940 g/cm³.

Claim 10 (currently amended) The film as recited in ~~claim 1~~any of claims 3 through 6, wherein the barrier layer provides the film with a moisture vapor transmission rate of less than about 0.25 g/100 in² / 24 hours at 100°F/90% relative humidity.

Claim 11 (currently amended) The film as recited in ~~claim 1~~any of claims 3 through 6, wherein the peel layer is adapted to enable the film, when sealed to itself, to be pulled apart with the application of less than about 2 pounds per inch of force.

Claim 12 (canceled).

Claim 13 (canceled).

Claim 14 (currently amended) ~~The film as recited in claim 12,~~A film for forming a bag with a lap seal, a top seal and a bottom seal, the film comprising:

a seal layer, wherein the seal layer includes a single site catalyzed polyethylene,

a barrier layer oppose from the seal layer such that seal layer and the barrier layer provide opposing exterior surfaces of the film,

a peel layer position between the seal layer and the barrier layer, wherein the peel layer comprises a matrix resin and polybutene in an amount ranging from between about 15% to about 20% by weight of the peel layer;

wherein the seal layer has a seal layer melting point and the barrier layer has a barrier layer melting point that is higher than the seal layer melting point,

wherein the seal layer is capable of sealing to the barrier layer at a temperature below the barrier layer melting point, to enable the lap seal to be formed between the barrier layer and the seal layer when the film is formed into a bag, and

wherein the seal layer is capable of sealing to itself at a temperature below the barrier layer melting point.

Claim 15 (canceled).

Claim 16 (currently amended) ~~The film as recited in claim 12,~~ A film for forming a bag with a lap seal, a top seal and a bottom seal, the film comprising:

a seal layer, wherein the seal layer includes a single site catalyzed polyethylene,

a barrier layer oppose from the seal layer such that seal layer and the barrier layer provide opposing exterior surfaces of the film,

a peel layer position between the seal layer and the barrier layer, wherein the peel layer comprises a matrix resin and polybutene in an amount greater than 15%;

wherein the seal layer has a seal layer melting point and the barrier layer has a barrier layer melting point that is higher than the seal layer melting point,

wherein the seal layer is capable of sealing to the barrier layer at a temperature below the barrier layer melting point, to enable the lap seal to be formed between the barrier layer and the seal layer when the film is formed into a bag, and

wherein the seal layer is capable of sealing to itself at a temperature below the barrier layer melting point, and

wherein the polymer matrix in the peel layer is low density polyethylene.

Claim 17 (original) A bag comprising:

a film comprising a peel layer between a seal layer and barrier layer, the peel layer comprising a matrix resin and a peel agent,

wherein the bag is configured such that the barrier layer of the film is the exterior surface of the bag and the seal layer is the interior surface of the bag,

wherein the bag has a top seal, a bottom seal and a lap seal extending between the top seal and the bottom seal,

wherein the seal layer and the barrier layer have compositions that enable the lap seal to be formed by sealing a portion of the seal layer at one end of the film to a portion of the barrier layer at an opposing end of the film,

wherein the seal layer is capable of sealing to itself at a temperature below the barrier layer melting point, and

wherein the seal layer and barrier layer are capable of forming a lap seal that is resistant to being opened along its length when the top seal of the bag is opened.

Claim 18 (original) The bag recited in claim 17, wherein the seal layer comprises a single site catalyzed ethylene alpha olefin copolymer.

Claim 19 (original) The bag recited in claim 17, wherein the barrier layer contains a polymer selected from the group consisting of high density polyethylene and polypropylene.

Claim 20 (original) The bag recited in claim 17, wherein the bag may be opened with the application of force less than 2 pounds per inch.

Claim 21 (original) A method of forming a bag with a form/fill/seal apparatus, the method comprising:

providing a film having a peel layer positioned between a seal layer and a barrier layer, wherein the film has a first edge and a second edge,

configuring the film such that the barrier layer of the film forms the exterior surface of the bag and the seal layer forms the interior surface of the bag,

forming a bottom seal,

forming a lap seal by sealing the seal layer along the first edge of the film to the barrier layer along the second edge of the film,

forming a top seal,

wherein the seal layer and the barrier layer have compositions that enable the seal layer to seal to the barrier layer, and

wherein the peel layer enables the top seal to be opened without also opening the lap seal along its length.

Claim 22 (original) The method as recited in claim 21, wherein the barrier layer contains a polymer selected from the group consisting of high density polyethylene and polypropylene.